

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A duplex transport system for use with a client computer system and a server computer system, the client computer system and the server computer system communicatively linked to a network system, the duplex transport system comprising:

a browser program configured to run on the client computer system, the browser program having built-in features associated with communication protocols used by the duplex transport system;

one or more browser applications configured to run on the client computer system under control of the browser program;

one or more server applications configured to run on the server computer system;

A
a client component configured to run as one or more instances on the client computer system, each instance of the client component being communicatively linked to one of the browser applications;

a server component configured to run as one or more instances on the server computer system, each instance of the server component being communicatively linked to one of the server applications; and

the client component and the server component configured such that each of the one or more instances of the client component is associated with one of the one or more instances of the server component to form a session for each association, each session having a session identifier and one or more sub-sessions designated as one or more data pipes, each data pipe being a sub-session of a particular session, having a pipe identifier, and configured to provide two independent data paths of duplex data traffic between the browser application communicatively linked to the instance of the client component associated with the particular session and the server application communicatively linked to the instance of the server component associated with the particular session.

2. (Original) The duplex transport system of claim 1 wherein some of the built-in features of the browser program are associated with either Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS), Internet Protocol Secure (IPSEC), Secure Sockets Layer/Transport Layer Security (SSL/TLS), other request-response protocols, and/or the same and/or other protocols approved by communication standards organizations including but not limited to such standards organizations as the International Telecommunications Union (ITU) including such committees as the Telecommunications, and the Telecommunications Standards Sector committee, and the Internet Architecture Board including such task forces as the Internet Engineering Task Force and the Internet Research Task Force.

X 3. (Original) The duplex transport system of claim 1 wherein the client component and the server component is further configured such that the one or more data pipes of a session based on an association between an instance of the client component and an instance of the server component are configured to provide data paths of duplex data traffic comprising messages, each message containing one of the pipe identifiers.

4. (Original) The duplex transport system of claim 1 wherein the client component and the server component is further configured such that the one or more data pipes of a session based on an association between an instance of the client component and an instance of the server component are configured to provide data paths of duplex data traffic comprising messages that each contain one of the pipe identifiers identifying the data pipe and a pipe sequence number, the pipe sequence number identifying an order of the messages in the duplex data traffic associated with the data pipe.

5. (Original) The duplex transport system of claim 1 wherein the client component and the server component is further configured such that the one or more data pipes of a session based on an association between an instance of the client component and an instance of the server component are assigned the pipe identifier corresponding to the data pipe used by that message.

6. (Original) The duplex transport system of claim 1 wherein the client component and the server component is further configured such that the one or more data pipes of a session based on an association between an instance of the client component and an instance of the server component utilize the communication protocols associated with the built-in features of the browser program for the duplex data traffic.

7. (Original) The duplex transport system of claim 1 wherein the built-in features of the browser program involve one or more of the following: uniform resource locators (URLs), firewall/proxy navigation under Hypertext Transfer Protocol (HTTP), proxy configuration of the browser program, HTTP authentication, Transmission Control Protocol/Internet Protocol (TCP/IP), Secure Sockets Layer/Transport Layer Security (SSL/TLS), HTTP Secure (HTTPS), Internet Protocol Secure (IPSEC), and access to client certificates for use with security protocols.

8. (Original) A duplex transport system for use with a client computer system having a client application controlling a utility application, the client computer system communicatively linked to a network system and a server computer system having a server application, the server computer system communicatively linked to the network system, the duplex transport system comprising:

a client component configured to run as an instance on the client computer system, the instance of the client component being communicatively linked to one of the utility applications;

a server component configured to run as an instance on the server computer system, the instance of the server component being communicatively linked to one of the server applications; and

the client component and the server component configured such that the instance of the client component is associated with the instance of the server component in an association to form a session, the session having a session identifier and a sub-session designated as a data pipe, the data pipe having a pipe identifier and configured to provide two independent data paths of duplex data traffic between the utility application communicatively linked to the instance of

the client component and the server application communicatively linked to the instance of the server component.

9. (Original) The duplex transport system of claim 8 wherein the client computer and the server component are further configured such that the duplex data traffic of the data pipe of the session formed from the association between the instance of the client component and the instance of the server component utilizes Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS), Internet Protocol Secure (IPSEC), Secure Sockets Layer/Transport Layer Security (SSL/TLS), other request-response protocols, and/or the same and/or other protocols approved by communication standards organizations including but not limited to such standards organizations as the International Telecommunications Union (ITU) including such committees as the Telecommunications, and the Telecommunications Standards Sector committee, and the Internet Architecture Board including such task forces as the Internet Engineering Task Force and the Internet Research Task Force.

10. (Original) The duplex transport system of claim 8 wherein the client computer and the server component are further configured such that the data pipe of the session formed from the association between the instance of the client component and the instance of the server component provides the data paths of duplex data traffic comprising messages that each contain the pipe identifier.

11. (Original) The duplex transport system of claim 8 wherein the client computer and the server component are further configured such that the data pipe of the session formed from the association between the instance of the client component and the instance of the server component data pipe is configured to provide data paths of duplex data traffic comprising messages that each contain the pipe identifier identifying the data pipe and a pipe sequence number, the pipe sequence number identifying an order of the messages in the duplex data traffic associated with the data pipe.

12. (Original) The duplex transport system of claim 8 wherein the client computer and the server component are further configured such that the session formed from the association between the instance of the client component and the instance of the server component further comprises a second data pipe being a second sub-session of the session, the second data pipe having a pipe identifier, configured to provide two additional independent data paths of a second duplex data traffic between the utility application and the server application, and being a secondary data pipe.

13. (Original) The duplex transport system of claim 8 wherein the client component is configured to run with a browser program.

14. (Original) The duplex transport system of claim 8 wherein the client component and the server component are further configured to run as second instances where the second instances of the client component and server component are associated in an association to form a second session having a session identifier.

15. (Original) A client computer system for use with a duplex transport system and a server computer system having a server application, the client computer system and the server computer system having a server component communicatively linked to a network system, the client computer system comprising:

a client computer;

a browser program configured to run on the client computer, the browser program having built-in features associated with communication protocols used by the duplex transport system;

one or more browser applications configured to run on the client computer under control of the browser program;

a client component configured to run as one or more instances on the client computer, each instance of the client component being communicatively linked to one of the browser applications, each instance of the client component configured to be associated with an instance of the server component to form a session with a session identifier, the client component

further configured to be associated with one or more data pipes, each data pipe being a sub-session of one of the sessions formed between instances of the client component and instances of the server component, each data pipe having a pipe identifier, each data pipe configured to provide two independent data paths of duplex data traffic between the browser application communicatively linked to the instance of the client component associated with the session of the data pipe and the server application communicatively linked to the instance of the server component associated with the session of the data pipe.

16. (Original) The client computer system of claim 15 wherein some of the built-in features of the browser program are associated with either Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS), Internet Protocol Secure (IPSEC), Secure Sockets Layer/Transport Layer Security (SSL/TLS), other request-response protocols, and/or the same and/or other protocols approved by communication standards organizations including but not limited to such standards organizations as the International Telecommunications Union (ITU) including such committees as the Telecommunications, and the Telecommunications Standards Sector committee, and the Internet Architecture Board including such task forces as the Internet Engineering Task Force and the Internet Research Task Force.

17. (Original) The client computer system of claim 15 wherein the client component is further configured to form an association between an instance of the client component and an instance of the server component to form a session that has more than one data pipe, each data pipe having duplex data traffic of messages, each message being assigned a pipe identifier corresponding to the data pipe used by each message.

18. (Original) The client computer system of claim 15 wherein the client component is further configured to form an association between the instance of the client component and an instance of the server component to form a session having one or more data pipes that utilize the communication protocols associated with the built-in features of the browser program for duplex data traffic.

19. (Original) The client computer system of claim 15 wherein the built-in features of the browser program involve one or more of the following: uniform resource locators (URLs), firewall/proxy navigation under Hypertext Transfer Protocol (HTTP), proxy configuration of the browser program, HTTP authentication, Transmission Control Protocol/Internet Protocol (TCP/IP), Secure Sockets Layer/Transport Layer Security (SSL/TLS), HTTP Secure (HTTPS), Internet Protocol Secure (IPSEC), and access to client certificates for use with security protocols.

20. (Original) A server computer system for use with a duplex transport system and a client computer system, the client computer system having a client component and a browser application and the server computer system communicatively linked to a network system, the server computer system comprising:

a server computer;

one or more server applications configured to run on the server computer;

a server component configured to run as one or more instances on the server computer, each instance of the server component being communicatively linked to one of the server applications, each instance of the server component configured to be associated with an instance of the client component to form a session with a session identifier, the server component further configured to be associated with one or more data pipes, each data pipe being a sub-session of the session, each data pipe having a pipe identifier, each data pipe configured to provide two independent data paths of duplex data traffic between the browser application communicatively linked to the instance of the client component associated with the session of the data pipe and the server application communicatively linked to the instance of the server component associated with the session of the data pipe.

21. (Original) The server computer system of claim 20 wherein some of the built-in features of the browser program are associated with either Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS), Internet Protocol Secure (IPSEC), Secure Sockets Layer/Transport Layer Security (SSL/TLS), other request-response protocols, and/or the same and/or other protocols approved by communication standards

organizations . including but not limited to such standards organizations as the International Telecommunications Union (ITU) including such committees as the Telecommunications, and the Telecommunications Standards Sector committee, and the Internet Architecture Board including such task forces as the Internet Engineering Task Force and the Internet Research Task Force

22. (Original) The server computer system of claim 20 wherein the server component is further configured to be associated with the client component in an association to form a session that has more than one data pipes having duplex data traffic where each message of the duplex data traffic is assigned the pipe identifier corresponding to the data pipe used by each message.

23. (Original) The server computer system of claim 20 wherein the server component is further configured to be associated with the client component in an association to form a session that has one or more data pipes that utilize the communication protocols associated with the built-in features of the browser program for the duplex data traffic.

24. (Original) The server computer system of claim 20 wherein the built-in features of the browser program involve one or more of the following: uniform resource locators (URLs), firewall/proxy navigation under Hypertext Transfer Protocol (HTTP), proxy configuration of the browser program, HTTP authentication, Transmission Control Protocol/Internet Protocol (TCP/IP), Secure Sockets Layer/Transport Layer Security (SSL/TLS), HTTP Secure (HTTPS), Internet Protocol Secure (IPSEC), and access to client certificates for use with security protocols.

25.-30. (Canceled)